

Figure 1 shows a functional block diagram of the gemstone grading system in accordance with the present invention;

Figure 2 shows a front view of the imaging apparatus of the gemstone grading system shown in Figure 1;

5 Figure 3 shows a front sectional view of the interior of the imaging apparatus of the gemstone grading system shown in Figure 1;

Figure 4 shows a top view of the imaging apparatus of the gemstone grading system shown in Figure 1;

10 Figure 5 shows a top view of the bottom light assembly of the imaging apparatus of the gemstone grading system shown in Figure 1;

Figure 6 is a schematic diagram of the electrical control circuit of the imaging apparatus shown in Figure 1;

Figure 7 is a side view of the imaging apparatus in a first imaging position;

15 Figure 8 is a side view of the imaging apparatus in a second imaging position;

Figure 9 is a side view of the imaging apparatus in a third imaging position;

^A
Figure 10^A is a logical flow diagram of the cut analysis method of operating the imaging apparatus of Figure 1;

^B
Figure 10^B is a continuation of the logical flow diagram of Figure 10 showing the color analysis method of operating the imaging apparatus of Figure 1; and

^C
25 Figure 10^C is a continuation of the logical flow diagram of Figure 10 the brilliance, scintillation, flaw and polish analysis method of operating the imaging apparatus of Figure 1.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

30 An automated gemstone grading and data management system is